

Notice of Allowability

Application No.

09/905,474

Examiner

John B. Vigushin

Applicant(s)

SAPUTRO ET AL.

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Application filed 13 July 2001.
2. ☒ The allowed claim(s) is/are 1-31.
3. ☒ The drawings filed on 13 July 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 5 <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. <u>100</u> | 6 <input type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-31 have been allowed.
2. The following is an examiner's statement of reasons for allowance:

As to Claims 1-8 and 17-24, patentability resides in the combination wherein: *the capacitor is operably disposed on the ground pad and a via electrically coupling the ground pad to the second voltage plane*, in further combination with the other limitations of base Claims 1 and 17, respectively.

As to Claims 9-16 and 25-31, patentability resides in the combination wherein: *the capacitor is operably disposed on the ground pad, a trace electrically coupled to the ground plane and a plurality of vias electrically coupling the trace to the second voltage plane*, in further combination with the other limitations of base Claims 9 and 25, respectively.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Akiba et al. (US 6,353,540 B1) discloses, in Fig. 1, ground and voltage planes with a capacitor but the capacitor and the layers are not connected as claimed.

b) Rowe et al. (US 4,739,448) discloses, in Fig. 3, a ground pad 66 with capacitor 64 and a voltage pad 58, including voltage sections at the end of vias 78 and 102, including ground sections 90 and 138. Nevertheless, this reference does not disclose or suggest that the ground pad be coupled to the second voltage plane. Ground pad 66 is indeed coupled with vias 88 and 106 to portions of the planes that include the voltage sections (sections under vias 78 and 102), but the via specifically couples to the ground portions 90 and not the voltage portions.

c) Ninomiya (US 2003/0024732 A1) discloses, in Fig. 19, capacitor 24 with voltage layers 23 and ground layers G. Nevertheless, the connection of the capacitor to a ground pad wherein that pad is coupled with a via to a second voltage plane does not exist.

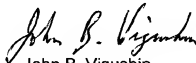
d) The other cited references to Moresco (US 6,535,398 B1: Figs. 7 and 8) and Harada et al. (US 6,512,680 B2: Fig. 4) show some of the elements of the claim such as a capacitor or voltage or ground planes. But none of them alone or in a permissible combination disclose all the limitations of the various planes connected as claimed in the instant Application.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Vigushin whose telephone number is 703-308-1205. The examiner can normally be reached on 8:30AM-5:00PM Mo-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7382 for regular communications and 703-308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



John B. Vigushin
Examiner
Art Unit 2827

jbv
June 29, 2003